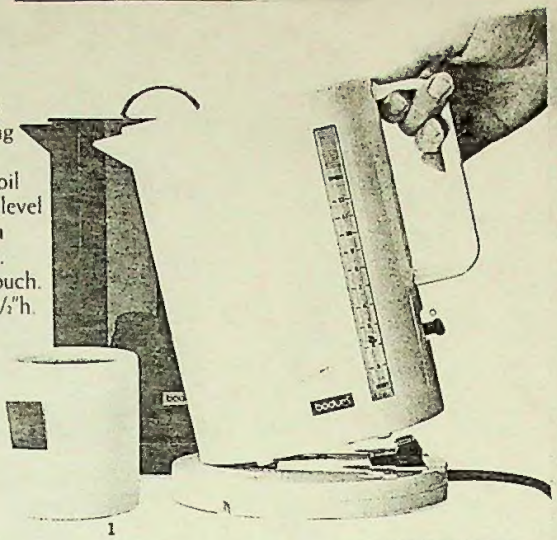
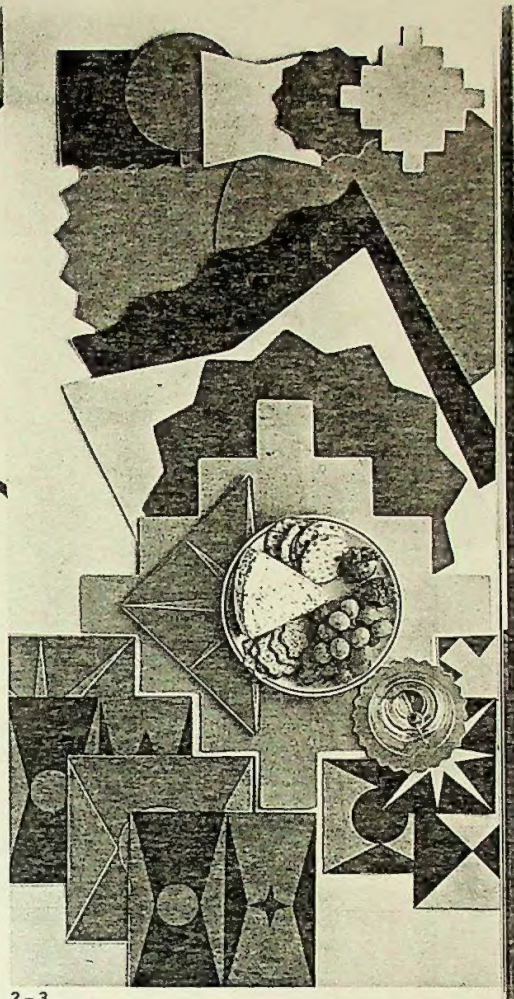
D7/650

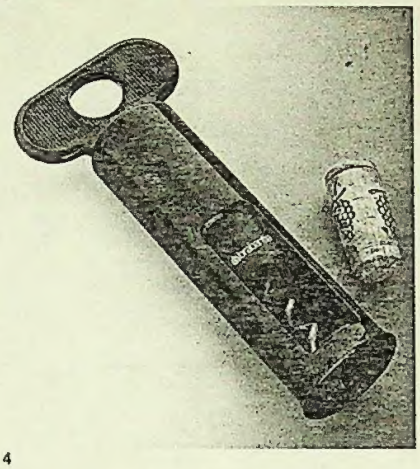
1. Cordless Electric Kettle
Safe, efficient kettle detaches from its cord and snug-fitting base, for carrying or pouring. When water boils, the noncorrosive stainless-steel heating coil automatically turns power off. Water level is indicated on outside window and in Braille markings (in ounces) on inside. Plastic body is never too hot to the touch. 58-oz. capacity. Made by Bodum. 10½"h.
2628. Red. **2630.** White.
$65.00 each.


1

2. *Shapes* Placemats and Coasters
Brighten up your tabletop, indoors or out, with easy-to-clean vinyl placemat and coaster sets. Each set, packaged in a transparent vinyl pouch, contains six differently colored shapes. Designed by William Sloan for the Museum.
1927. Coasters, approx. 5" sq. $8.00.
1928. Placemats, approx. 14" sq. $22.00.

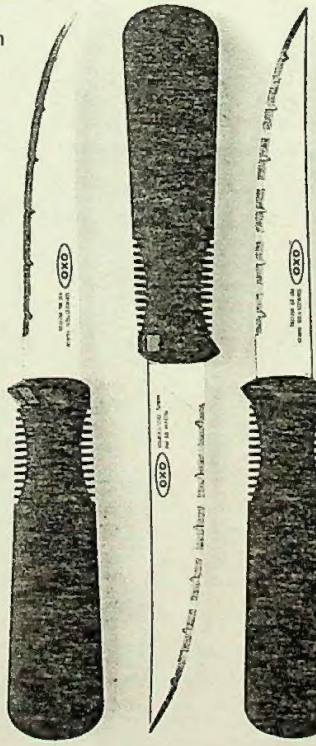

2–3

3. Party Napkins
Brightly colored bold geometric patterns grace beverage and dinner-party napkins designed by Gene Meyer for the Museum. Clear acetate gift box holds 50 beverage napkins (5" sq.) or 20 dinner napkins (8" sq). Printed in Germany.
Beverage. $7.95.
1008. Violet/Lime. **1009.** Blue/Yellow.
Dinner. $5.95.
1011. Fuschia/Lime. **1012.** Fuschia/Blue.

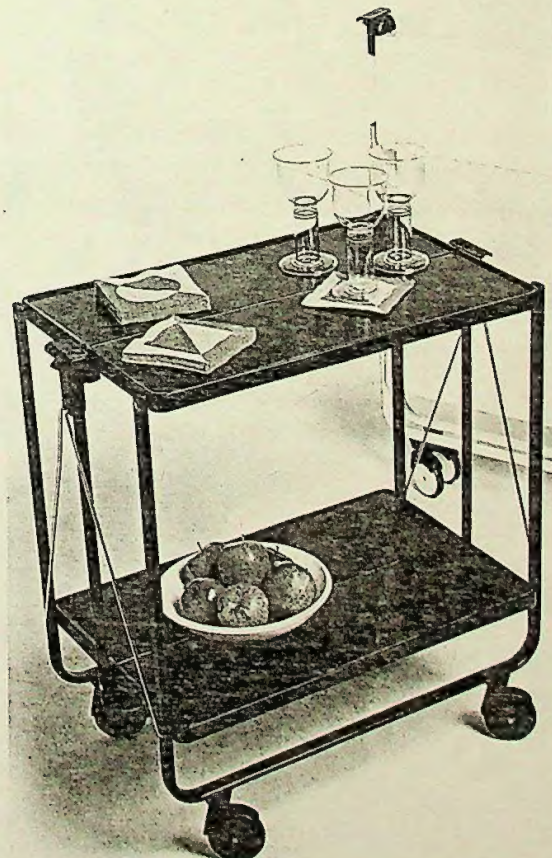

4

4. Foolproof Corkscrew
You can't miss! The barrel guides the sharply pointed screw to the center of the cork, every time, for easy, clean removal. Compact and freestanding, with a built-in foil cutter. Easy to use: turn key to withdraw cork from bottle, reverse to eject cork from holder. Strong ABS plastic body and barrel. Extra-long, nonstick screw. Made in Holland. Instructions included. 7". **71932.** $20.00.

5. Steak Knife Set
Not just for steak eaters, these "smart" Good Grips® knives are suited to many kitchen prep tasks. Comfortably sized, patented, rubbery Santoprene® handle conforms to your hand. The serrated stainless-steel blades never need sharpening. Dishwasher-safe.
Set of four. 9". **5847.** $16.00.



6. Folding Trolley
A space-saving entertainment aid, this sturdy trolley looks great when open, and folds for storage to a width of only 3 inches. Self-locking handles on each side make it easy to open and close the collapsible metal frame. Handy for many duties in the home or office. Represented in the Museum Design Collection. Designed by Louis Lepoix. Made in Germany. 28½h x 23½w x 15¾"d.
5560. White. **5564.** Black.
$100.00 each.*


6

5

* This item cannot be gift-wrapped.

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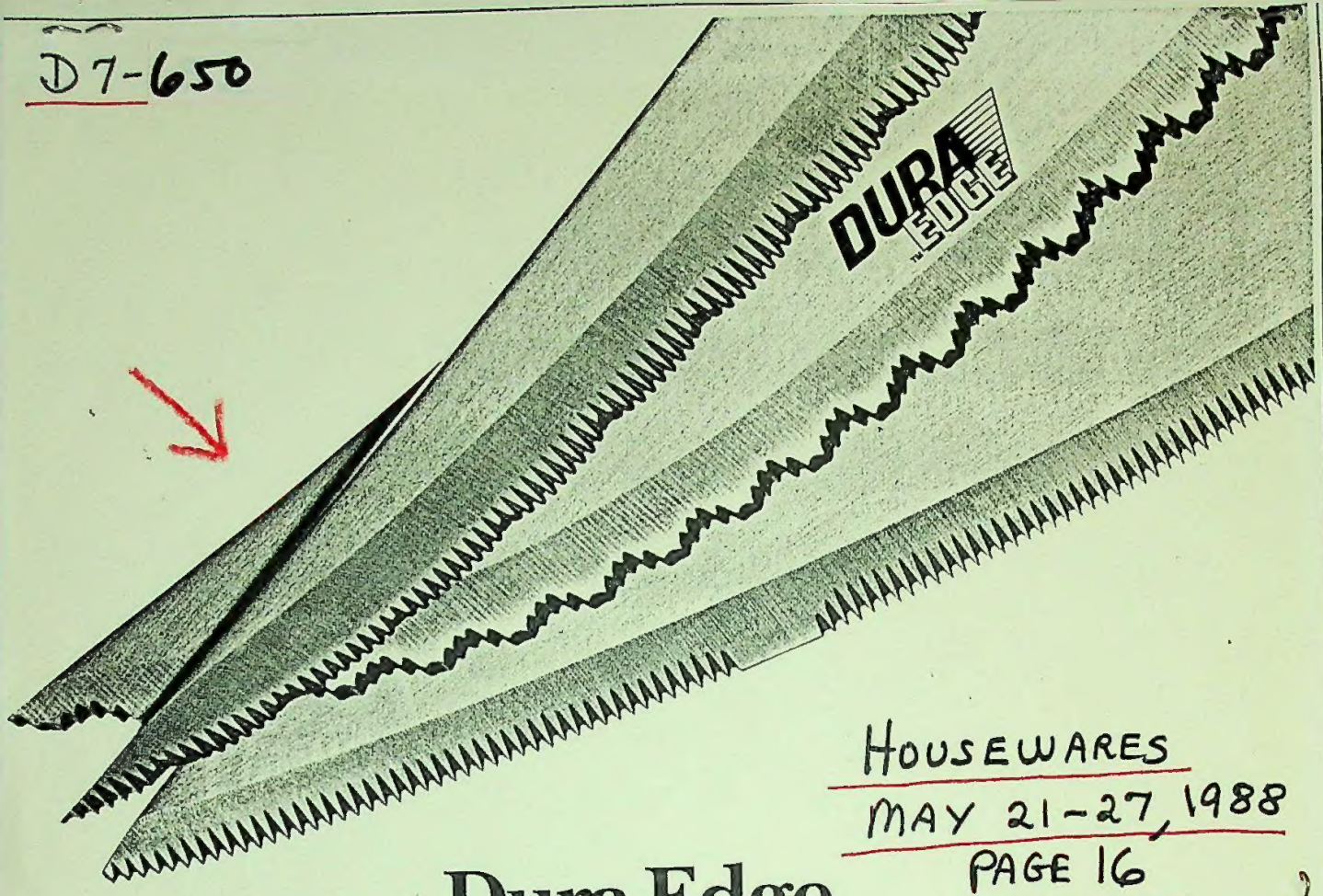

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PAGE 16

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NEWS D7-

Cutlery Makers Carve Out Their Markets

HOUSEWARES® Exclusive Report

WAUSAU, WI—Despite acquisitions in the cutlery industry, brand names and cutlery lines have survived. A look at key transactions—Fiskars acquiring Wilkinson Sword and Gerber Legendary Blades, Regent Sheffield merging with Wiltshire, Russell Harrington Cutlery joining forces with Washington Forge—seems to indicate that many cutlery manufacturers are looking to grow distribution by offering established brands at a variety of pricepoints.

Cutting Through The Fog

To keep retailers' confusion to a minimum over who's getting what product line for what distribution, manufacturers differentiate product through packaging or brand name awareness. Manufacturers are attempting to offer the different channels of distribution quality product at a margin without confusing the consumer. Said Mike Vierzba, director of marketing for Fiskars, "You can't confuse the issue of who you are to the consumer. You almost need to establish separate companies or brands."

Fiskars, Vierzba said, has attempted to supply the middle market from upper to lower end, with the acquisitions of Gerber Legendary Blades and, most recently, Wilkinson Sword. Vierzba said the company is attempting something no other cutlery manufacturer has tried before—"pricepoint management."

Although Vierzba said no other cutlery manufacturer has tried this, some would beg to differ.

Lifetime Cutlery's Jeff Siegel, executive vp, said the company has 12 proprietary brands under which it sells cutlery, with distribution "primarily to department and specialty stores in the moderate to upper middle range," while offering product for the entire retail spectrum.

Siegel said Lifetime offers more than 700 lines of cutlery, with the balance of business being done in private label lines for levels of trade other than the middle market. Said Siegel, "This enables the company to sell to lower and higher end markets, without upsetting the mid-range retailers."

Robinson Knife also offers different lines for different channels of distribution, said Robinson Senior VP Lenny Yablonka. "In distributing this (cutlery), one line would have a rosewood handle, the other a robinwood handle, the robinwood being the more expensive for a better channel of distribution."

Washington Forge is attempting to keep the different channels of distribution happy by varying the packaging for each type of retail situation. Said VP Dick Murphy, "We do get requests (from retailers) to put it (cutlery compositions) into a different box. It can be done. It's not impossible, but you have to do it early in the game."

Selective Sales

Some cutlery manufacturers opt not to cover the bulk of the business, and stick to only one end of the retail spectrum. J.A. Henckels supplies to what Robert Topazio, national sales manager, called a "controlled distribution." Department and specialty stores are the high-end manufacturer's primary channels, while catalogers, hardware outlets, military, premium and a personal care line for drug stores are also addressed.

* * *

With cutlery manufacturers now offering a variety of product for a variety of distribution channels, wading through who offers what for whom can get confusing.

The accompanying chart attempts to break down the cutlery marketplace by identifying key manufacturers, brand names offered by each, channels of distribution addressed by their individual lines and suggested retail pricepoints. The suggested retails column gives only a price range from the least expensive piece, usually a three-inch paring knife, to the most expensive piece, usually a 10-inch chef's knife.

Set composition suggested retails are also representative of the least to most expensive sets available. This chart does not encompass all manufacturers nor cutlery lines offered. It is intended to highlight key lines from well-known suppliers.

(19) European Patent Office
Office européen des brevets

(11) Publication number: **0 220 362 A1**

(12) EUROPEAN PATENT APPLICATION

(21) Application number: 86104733.0

(22) Date of filing: 07.04.86

(51) Int. Cl.⁴: B26B 9/02

(30) Priority: 18.10.85 GB 8525762

(43) Date of publication of application: 06.05.87 Bulletin 87/19

(84) Designated Contracting States: AT BE CH DE FR GB IT LI LU NL SE

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(54) Knives.

(57) The invention relates to knives and in particular to knives of the type of construction described and claimed in British Patent No 2108887, where the blade has a V-shaped cutting edge centrally located on a parallel sided blank with the edge flat ground to one side and ground with formulations such as serrations or serrations and scallops. The object of the invention is to improve such knives by increasing the strength at the cutting edge, which objective is met by a construction where along that side of the V-shaped cutting edge provided with formulations a number of interruptions are provided in spaced relationship along the length of the cutting edge. The interruptions can take the form of areas free from formulations or can take the form of single large serrations spaced along the length of the cutting edge.

EP 0 220 362 A1

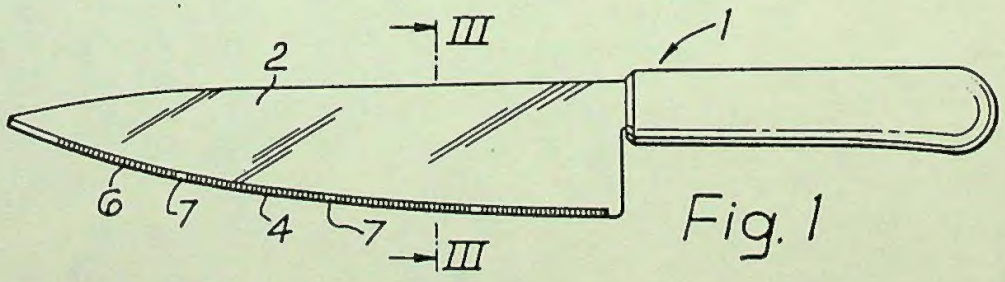

Fig. 1

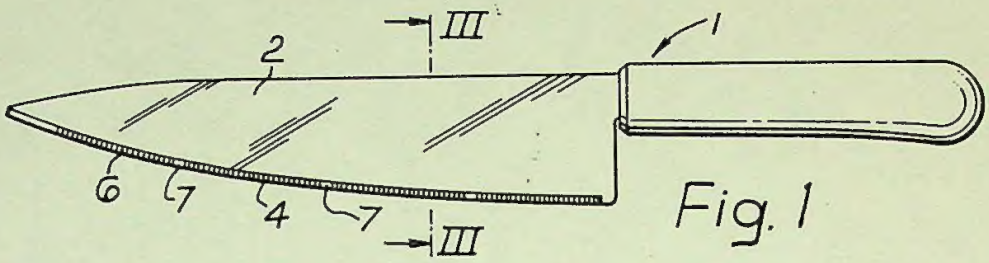

Fig. 1

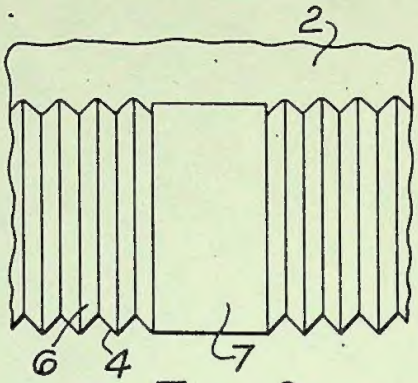

Fig. 2

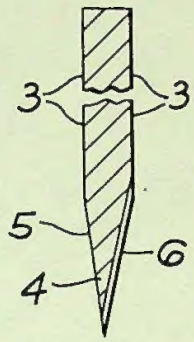

Fig. 3

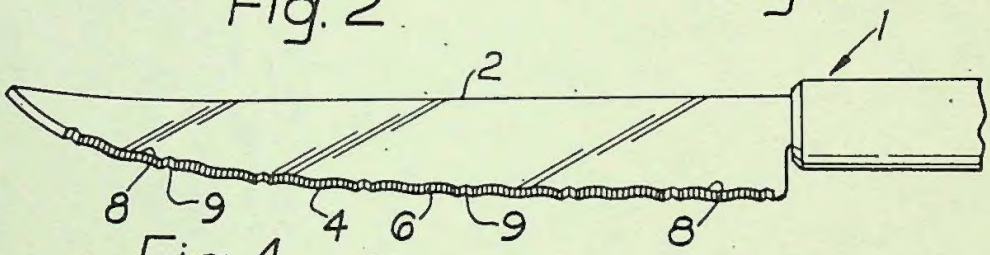

Fig. 4

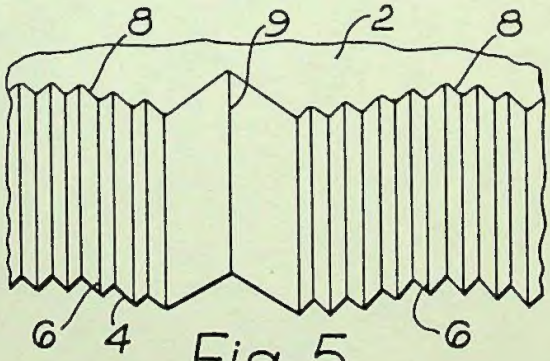

Fig. 5

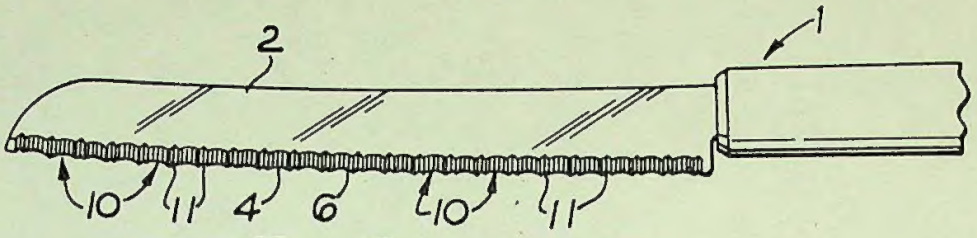

Fig. 6

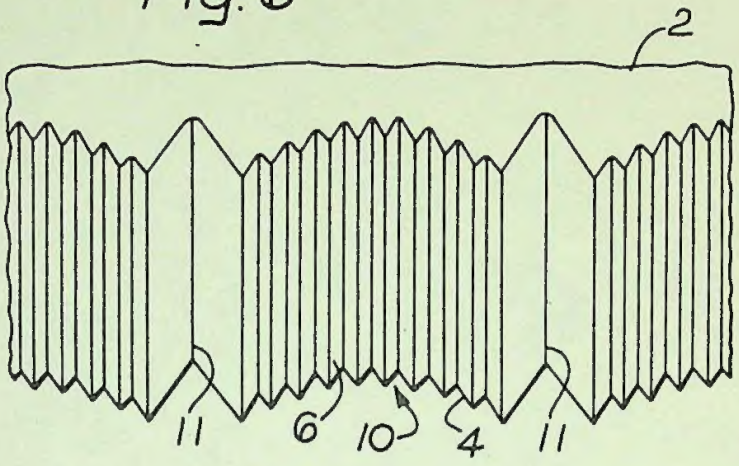

Fig. 7

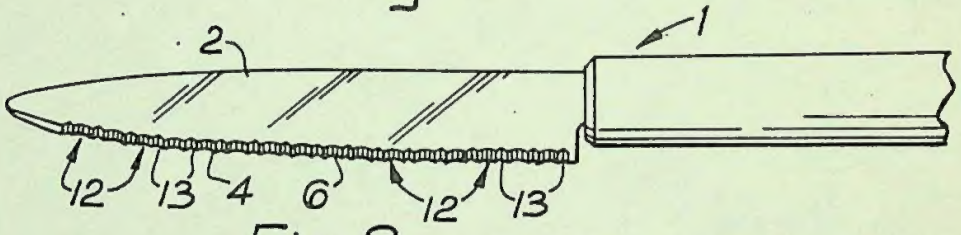

Fig. 8

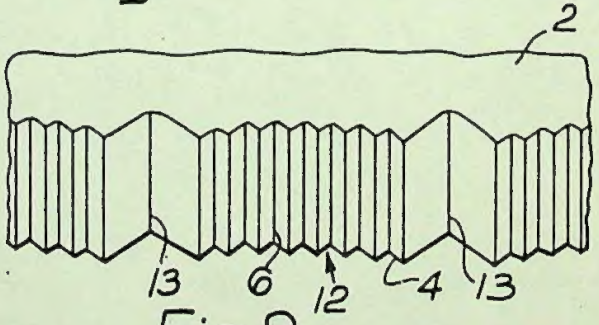

Fig. 9

European Patent Office

EUROPEAN SEARCH REPORT

Application number

DOCUMENTS CONSIDERED TO BE RELEVANT

EP 86104733.0

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	US - A - 2 059 414 (TAYLOR) * Totality * --	1,3,4	B 26 B 9/02
A	GB - A - 257 465 (GILLOTT) * Totality * --	2	
D,A	GB - A - 2 108 887 (WESTALL RICHARDSON LTD.) * Totality * ----	5,6,7, 8,9	

TECHNICAL FIELDS SEARCHED (Int. Cl.4)

B 26 B 9/00

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
VIENNA	13-01-1987	BRÄUER

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
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T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
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EPO Form 1503 03.82

KNIVES

This invention relates to knives, and is particularly, though not necessarily exclusively concerned with domestic knives such as would be used, e.g., in the kitchen.

It has been long recognised that the cutting performance of a knife can be enhanced or made to suit a particular cutting purpose by providing at the cutting edge a formulation such as serrations or scallops. However whilst such formulations can improve considerably the cutting action, they have the disadvantage of not readily being resharpenable and have a tendency to tear rather than cut clean. Because the creation of formulations such as serrations or scallops involves a separate grinding step in the production of knife blades, this has the effect of increasing production costs, and yet produces a blade which may not have the total life of a conventional blade by virtue of the difficulties of resharpening. It is, therefore, most important that the production costs of a blade with edge formulations are kept to a minimum, whilst providing adequate cutting life and improved cutting performance.

A construction embodying edge formations in the form of serrations and/or scallops is described and claimed in British Patent No. 2108887, where a blade has a V-shaped cutting edge, centrally located on a parallel-sided blank, the cutting edge being flat ground to one side of the Vee and ground with formulations to the opposite side of the Vee. Such a construction has proved to be most effective in providing an exceedingly sharp cutting edge that retains its sharpness for considerable periods, and can be resharpened.

The object of the present invention is to provide still further improvements to a knife blade of the type defined above.

According to the present invention, a knife comprises a blade having formations at its cutting edge to assist the cutting action, said edge being V-shaped and centrally located on a parallel sided blank, and being flat ground to one side of the Vee and ground with formations to the opposite side of the Vee, there being a number of interruptions to the formations, in spaced relationship along the length of the cutting edge.

Thus, the interruptions can take the form areas where no formations are provided, or can take the form of a number of single large serrations. In both instances, the interruptions add noticeably to the strength of the cutting edge at the tip of the Vee, assisting considerably in the prevention of flexing of the blade at the tip of the Vee as can occur particularly when cutting relatively tough materials. Both types of formations also assist in clearing debris from the bottom of the cut being produced by the blade. Interruptions in the form of single large serrations have the still further advantage of providing a buffer between the material being cut and the cutting edge immediately alongside each large serration that gives protection to the cutting edge to maintain the sharpness of the cutting edge, but without impairing the cutting action.

Preferably, the formulations are scallops and/or serrations.

Thus, the invention utilises conventional parallel sided blanks, and has a centrally located cutting edge, with the grinding of edge formulations to one side only. Such a blade, therefore, combines relatively low costs of production with the retention of improved cutting performance.

It has been found that the angle of the V-shaped cutting edge, and the scallops and/or serrations ground to one side of the V-shaped cutting edge have a marked effect on the cutting performance of the blade. It is therefore an important aspect of the present invention that the V-shaped cutting edge has an included angle between 14° and 30°. Preferably the included angle lies between 16° and 22°, it being further preferred that the included angle lies between 18° and 20°.

It is yet another important aspect of the invention that serrations are ground to one side of the V-shaped cutting edge, there being from 25 to 50 serrations per inch and preferably 40 serrations per inch, between the interruptions, it being further preferred that the included angle of the serrations lies between 80° and 100° and still further preferably 90°. To ensure that the serrations do not produce a saw blade effect, great care has to be taken to produce serrations which, when viewed from the flat ground side of the blank, only marginally protrude above the general level of the edge of the blade. Because the V-shaped cutting edge is flat ground to one side, and the serrations only protrude marginally, the knife can be resharpened by regrinding by hand or otherwise, the flat ground surface of the V-shaped cutting edge.

It is a still further important aspect of the invention that in addition to serrations, scallops can be ground on the same side of the V-shaped cutting edge. Thus, to provide a general purpose knife, one scallop can be provided between adjacent, spaced interruptions, e.g. having a radius in the range 0.1" to 0.25". Preferably the radius is 0.16". The scallops may have pitch in the range 2.0 to 10 and preferably 5 T.P.I. It is further preferred that the serrations, when scallops are present, have an included angle between 50° and 90°, with a still further preference of 60°. When a heavier cutting

action is required, e.g. for bread and the like, again a single scallop can be provided between spaced interruptions, and when the scallops can have a radius of 0.15 to 0.5 inch, and preferably 0.25 inch, with a scallop pitch between 1.0 and 6.0 T.P.I. and preferably 4 T.P.I., and where the serrations may be between 25 and 50 T.P.I. and preferably 33 T.P.I.

More than one scallop can be provided between spaced interruptions. Thus, to provide e.g. a carving knife, two scallops can be provided between spaced interruptions, and which may each have, at the cutting edge, a radius in the range 0.625 inch to 1.25 inch and preferably 0.75 inch, and a scallop pitch in the range 1 to 4 T.P.I. and preferably 2 T.P.I. Here the serrations can be as has been mentioned above in relation to the serrated only construction or the single scallop general purpose embodiment.

Four embodiments of the invention will now be described, purely by way of example only, with reference to the accompanying drawings, in which:-

Figure 1 is a side elevation of a knife displaying a cutting edge in accordance with one embodiment of the invention;

Figure 2 is an enlarged view of part of the cutting edge of Figure 1;

Figure 3 is a section on the line III-III of Figure 1;

Figure 4 is a side elevation of a knife displaying a cutting edge in accordance with a second embodiment of the invention;

Figure 5 is an enlarged view of part of the cutting edge of Figure 4;

Figure 6 is a side elevation of a third embodiment of knife displaying a cutting edge in accordance with the invention;

Figure 7 is an enlarged view of part of the cutting edge of Figure 6.

Figure 8 is a side elevation of a fourth embodiment of knife displaying a cutting edge in accordance with the invention; and

Figure 9 is an enlarged view of the cutting edge of Figure 8.

In Figures 1 to 3, a knife 1 has a blade 2 with parallel sides 3 and a centrally located "V"-shaped cutting edge 4 flat ground to one side 5 and ground with serrations 6 to the other side. The "V"-shaped cutting edge has an included angle between 14° and 30°, preferably 18° to 20° and the serrations are in the range 25 to 50 per inch, preferably 40 per inch. The included angle of the serrations at the cutting edge is between 80° and 100°, preferably 90°.

Along the length of the serrated side of the "V"-shaped cutting edge, a number of spaced interruptions 7 are formed, in this embodiment by leaving a portion of that side of the "V"-shaped cutting edge unserrated. The presence of the unserrated portions or interruptions 7 adds noticeably to the strength of the cutting edge at the tip of the Vee, and provides considerable assistance in preventing any flexing of the blade at the very tip of the cutting edge particularly when cutting relatively tough materials.

In the second embodiment illustrated in Figures 4 and 5 and suited to use as a carving knife, for convenience the reference numerals of Figures 1 to 3 have been employed for like parts. Thus, again, the knife 1 has a blade 2 with parallel sides 3 and a central V-shaped cutting edge 4 flat ground to one side 5 and formed with serrations 6 to the other side (and is in this regard essentially similar to the construction shown in Figure 3). However, in addition to the serrations 6, that side of the V-shaped cutting edge is ground with scallops 8, each having a radius at the cutting edge between 0.625 inch and 1,25 inch preferably 0.75 inch, and a pitch in the range 1 to 4 and preferably 2 T.P.I. With such scallops present the serrations 6 have an included angle between 50 and 90°, preferably 60°. The interruptions spaced along the length of the central V-shaped cutting edge take the form of large single serrations 9. Adjacent serrations 9 contain two scallops.

Figures 6 and 7 show a third embodiment suited to use as a bread knife, and here again, for convenience, the reference numerals of Figures 1 to 3 have been retained for like parts. Thus, the knife 1 has a blade 2 with parallel sides 3 and a central V-shaped cutting edge 4, flat ground to one side 5 and formed with serrations 6 to the other side. The serrated side of the V-shaped cutting edge being ground with scallops 10. Along the length of the cutting edge large serrations 11 are provided, there being a single scallop 10 between adjacent large serrations. Here it is preferred that the scallops have a radius at the cutting edge in the range 0.15 inch to 0.5 inch and preferably 0.25, and a scallop pitch in the range 1.0 to 6 T.P.I., preferably 4 T.P.I. The serrations 6 are preferably in the range 25 to 50 T.P.I. and further preferably, 33 T.P.I.

Figures 8 and 9 show a fourth embodiment suited for use as a general purpose knife. Here again the reference numerals of Figures 1 to 3 have been retained for like parts.

Thus, a knife 1 has a blade 2 with parallel sides 3 and a central V-shaped cutting edge 4 flat ground to one side 5 and formed with serrations 6 to the other side. The serrated side of the cutting edge is formed with scallops 12, and along the length of the cutting edge, large serrations 13 are provided with a single scallop between adjacent large serrations 13. Here it is preferred that the scallops have a radius in the range 0.1 inch to 0.25

inch, and more preferably 0.16 inch, and a pitch in the range 2 to 10 T.P.I., more preferably 5 T.P.I., the serrations having an included angle between 50° and 90°, more preferably 60°.

As with the interruptions 7 of Figure 1, the large serrations 9 and 11 add noticeably to the strength of the blade, and are of considerable assistance in preventing flexing at the tip of the V-shaped cutting edge. The large serrations 9 and 11 have the additional advantage of providing a buffer between the material being cut and the serrations 6 immediately alongside the serrations 9 and 11 that give protection to the cutting edge without impairing the cutting action, and are effective in clearing debris from the bottom of the cut being produced.

Claims

1. A knife comprising a blade (2) having formations (6, 8) at its cutting edge to assist the cutting action, said edge being V-shaped and centrally located on a parallel sided blank, and being flat ground to one side (5) of the Vee and ground with formations (6, 8) to the opposite side of the Vee characterised in that there are a number of interruptions (7,9) to the formations (6, 8) in spaced relationship along the length of the cutting edge.

2. A knife as in Claim 1, characterised in that the interruptions (7) take the form of areas free from formations.

3. A knife as in Claim 1; characterised in that the interruptions (9) take the form of a number of single, large serrations.

4. A knife as in any of Claims 1 to 3, characterised in that the formations (6) are in the form of serrations.

5. A knife as in any of Claims 1 to 3, characterised in that the formations are in the form of serrations (6) combined with scallops (8), the serrations having an included angle of 60°.

6. A knife as in Claim 1, wherein the centrally located V-shaped cutting edge has an included angle between 14° and 30°, preferaly 18° to 20°.

7. A knife as in Claim 4, characterised in that there are from 25 to 50 serrations (6) per inch, preferably 40, and the serrations (6) have an included angle between 80° and 100°, preferably 90°.

8. A knife as in Claim 5, characterised in that one scallop (8) is provided between spaced interruptions (9) the scallops having a radius in the range 0.1 inch to 0.25 inch, preferably 0.16 inch, and a pitch in the range 2 to 10 T.P.I., preferably 5 T.P.I.

9. A knife as in Claim 11, characterised in that the serrations (6) have an included angle between 50° and 90°.

10. A knife as in Claim 5, characterised in that a single scallop (8) is provided between spaced interruptions (9), and which have a radius betwen 0.15 inch and 0.5 inch, preferably 0.25 inch, with a scallop pitch between 1.0 and 6.0 T.P.I. preferably 4 T.P.I. and where the serrations are between 25 and 50 T.P.I., preferably 33 T.P.I.

11. A knife as in Claim 5, characterised in that two scallops (8) are provided between spaced interruptions (9), the scallops (8) having a radius at the cutting edge in the range 0.025 inch to 1.25 inch preferably 0.75 inch and a pitch in the range 1 to 4 T.P.I., preferably 2 T.P.I.

(12) UK Patent Application (19) GB (11) 2 108 887 A

(21) Application No 8138490
(22) Date of filing 22 Dec 1981
(30) Priority data
(31) 8103022
(32) 31 Jan 1981
(33) United Kingdom (GB)
(43) Application published
25 May 1983
(51) INT CL³
B26B 9/02
(52) Domestic classification
B4B 130F 130N 130QX
(56) Documents cited
GB 0886832
GB 0657019
GB 0485950
GB 0437076
GB 0391947
GB 0322398
(58) Field of search
B4B
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(54) Knives

(57) A knife comprises a blade having a cutting edge 3 of V-shape on a parallel sided blank, the V-shape being formed by flat grinding to one side 4 of the Vee and grinding with formulations such as scalloping and/or serrations to the opposite side 5 of the Vee.

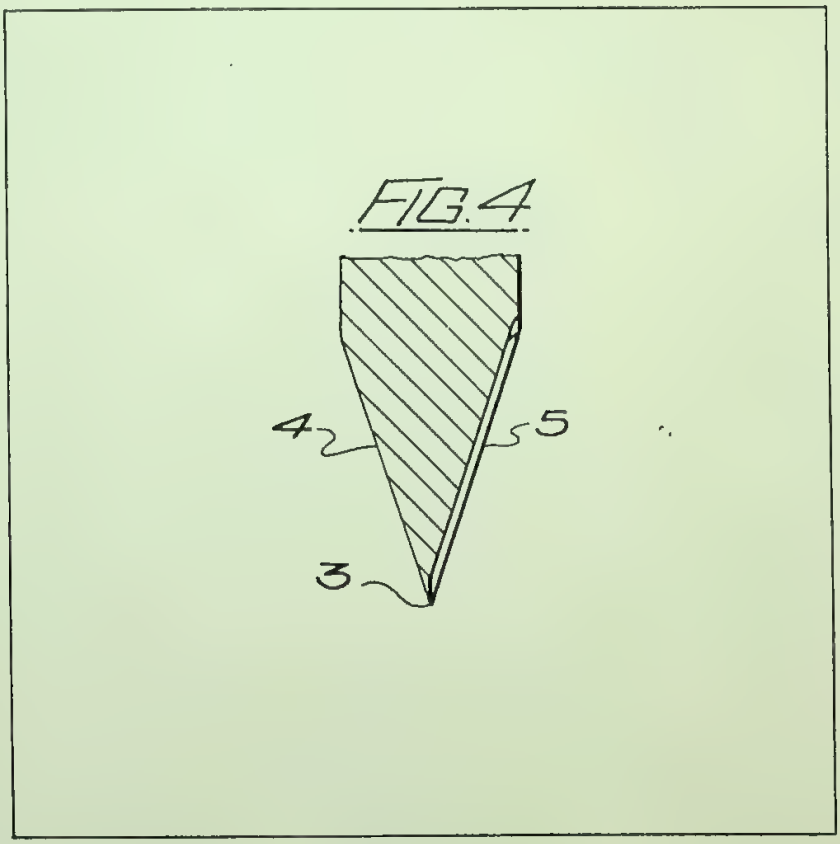

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FIG.1

FIG.2

FIG.3

FIG.4

FIG. 5

FIG. 6

FIG. 7

FIG. 8

SPECIFICATION
Knives

This invention relates to knives, and is particularly, though not necessarily exclusively, concerned with domestic knives such as would be used, e.g., in the kitchen.

It has been long recognised that the cutting performance of a knife can be enhanced or made to suit a particular cutting purpose by providing at the cutting edge a formulation such as serrations or scallops. However whilst such formulations can improve considerably the cutting action, they have the disadvantage of not readily being resharpenable and have a tendency to tear rather than cut clean. Because the creation of formulations such as serrations or scallops involves a separate grinding step in the production of knife blades, this has the effect of increasing production costs, and yet produces a blade which may not have a total life of a conventional blade by virtue of the difficulties of resharpening. It is, therefore most important that the production costs of the blade with edge formulations are kept to a minimum, whilst providing adequate cutting life and improved cutting performance.

Many attempts have been made hitherto, without success to produce an effective (cost and performance) serrated or scalloped blade for a knife. Thus, it is known to take a parallel-sided blank and grind serrations on one side only at an angle, the angular serrations combining with the plain unground face to produce a cutting edge. However by not having the cutting edge centrally of the thickness of the blade, the cutting action is impaired, and is not suited to both left hand and right hand usage. It is also known to grind serrations to one side only of a blank, the sides of which taper to a centrally arranged cutting edge, but the use of tapered blanks increases noticeably the cutting force required and adds noticeably to the costs of production. It is further known to grind serrations on both faces of a parallel-sided blank to produce a central cutting edge. However this produces what resembles a saw edge with ragged cutting properties.

The object of the invention is to provide a knife having a blade with edge formulations which combines the requirements of improved performance and low costs of production.

According to the present invention, a knife comprises a blade having formulations at its cutting edge to assist the cutting action, said edge being V-shaped on a parallel-sided blank, and being flat ground to one side of the Vee and ground with formulations to the opposite side of the Vee. Preferably, the formulations are scallops and/serrations.

Thus, the invention utilises conventional parallel sided blanks, and has a centrally located cutting edge, with the grinding of edge formulations to one side only. Such a blade, therefore, combines relatively low costs of production with the retention of improved cutting performance.

It has been found that the angle of the V-shaped cutting edge, and the scallops and/or serrations ground to one side of the V-shaped cutting have a marked effect on the cutting performance of the blade. It is therefore an important aspect of the present invention that the V-shaped cutting edge has an included angle between 14° and 30°. Preferably the included angle lies between 16° and 22°, it being further preferred that the included angle lies between 18° and 20°.

It is yet another important aspect of the invention that serrations are ground to one side of the V-shaped cutting edge, there being from 25 to 50 serrations per inch and preferably 40 serrations per inch, it being further preferred that the included angle of the serrations lies between 80° and 100° and still further preferably 90°. To ensure that the serrations do not produce a saw blade effect, great care has to be taken to produce serrations which, when viewed from the flat ground side of the blank, only marginally protrude above the general level of the edge of the blade. Because the V-shaped cutting edge is flat ground to one side, and the serrations only protrude marginally, the knife can be resharpened by regrinding by hand or otherwise, the flat ground surface of the V-shaped cutting edge.

It is s still further important aspect of the invention that in addition to serrations, scallops can be ground on the same side of the V-shaped cutting edge. Thus, scallops having a radius in the range 0.1" to 0.25" can be provided. Preferably the radius is 0.16". The scallops may have pitch in the range 2.5 to 10 and preferably 5 T.P.I. It is further preferred that the serrations, when scallops are present, have an included angle between 50° and 70°, with a still further preference of 60°.

Two embodiments of the invention will now be described with reference to the accompanying drawings, in which:—

Figure 1 is a side elevation of a knife with a knife edge in accordance with the invention;

Figure 2 is a side elevation of the opposite side of part of the knife blade of Figure 1;

Figure 3 is an enlarged side elevation of part of the blade edge of Figure 1;

Figure 4 is a section on the line 4—4 of Figure 3;

Figure 5 corresponds to Figure 1 but shows a second embodiment of the invention;

Figure 6 corresponds to Figure 2, but shows the knife blade of Figure 5;

Figure 7 corresponds to Figure 3, but shows the knife edge of Figure 5; and

Figure 8 is a section on the line 8—8 of Figure 7.

In Figures 1 to 4, a knife 1 has a blade 2 the cutting edge 3 of which is of V-shape (see particularly Figure 4) formed by flat grinding to one side of the Vee (at 4) and grinding with formulations 5 to the opposite side of the Vee. As is shown particularly by Figure 4, the included angle of the V-shaped cutting edge lies between 18° and 20°. The formulations 5 in Figures 1 to 4

are, as is shown more particularly by Figure 3, serrations that are ground to one side of the V-shaped cutting edge. It is preferred that there are 40 serrations per inch and that the included angle between adjacent serrations is at 90°. To prevent the cutting edge from having a saw-blade effect, the depth of grinding of the serrations 5 is such that when viewed in the direction of Figure 2, the serrations only marginally protrude above the general level of the edge of the blade.

In Figures 5 to 8 there is shown a second embodiment of the invention where the cutting edge 6 of the blade 7 of a knife 8 is formed by a combination of serrations and scalloping. Thus, as is shown particularly by Figure 8, the cutting edge is again a V-shaped cutting edge with flat grinding at 9 (Figure 6) to one side of the cutting edge and grinding with serrations and scallops 10 to the other side of the cutting edge. Here again as is shown by Figure 8 the V-shaped cutting edge has an included angle between 18° and 20°, and as is indicated in Figure 7 the serrations have an included angle between adjacent serrations of 60° with 40 serrations per inch, and the scallops have a radius of 0.16" and are provided at a rate of 5 per inch. As with the cutting edge of Figures 1 to 4 and to prevent the serrations/scallops from producing a saw-blade effect, the serrations should only marginally protrude above the general level of the edge of the blade.

Knife blades in accordance with the invention successfully combine relatively low production costs with improved performance over conventional blades, and in the preferred forms, a performance considerably better than other forms of blades with edge formulations known hitherto.

CLAIMS

1. A knife comprising a blade having formulations at its cutting edge to assist the cutting action, said edge being V-shaped on a parallel-sided blank, and being flat ground to one side of the Vee and ground with formulations to the opposite side of the Vee.

2. A knife as in Claim 1, wherein the formulations are scallops and/or serrations.

3. A knife as in Claim 1 or Claim 2, wherein the V-shaped cutting edge has an included angle of between 14° and 30°.

4. A knife as in any of claims 1 to 3, wherein the V-shaped cutting edge has an included angle of between 16° and 22°.

5. A knife as in any of Claims 1 to 4, wherein the V-shaped cutting edge has an included angle of between 18° and 20°.

6. A knife as in any of Claims 2 to 5, wherein between 25 to 50 serrations per inch are ground to one side of the V-shaped cutting edge.

7. A knife as in any of Claims 2 to 6, wherein 40 serrations per inch are ground to one side of the V-shaped cutting edge.

8. A knife as in any of Claims 2 to 7, wherein the serrations have an included angle of between 80° and 100°.

9. A knife as in any of Claims 2 to 8, wherein the serrations have an included angle of 90°.

10. A knife as in any of Claims 2 to 9, wherein the serrations are ground such that when viewed from the flat ground side of the blank they only marginally protrude above the general level of the edge of the blade.

11. A knife as in any of Claims 2 to 10, wherein scallops having a radius of 0.1" to 0.25" are ground to one side of the V-shaped cutting edge.

12. A knife as in any of Claims 2 to 11, wherein scallops having a radius of 0.16" are ground to one side of the V-shaped cutting edge.

13. A knife as in any of Claims 1 to 12, wherein the scallops have a pitch in the range 2.5 to 10 per inch.

14. A knife as in any of Claims 2 to 13, wherein the scallops have a pitch of 5 per inch.

15. A knife as in any of Claims 2 and 11 to 14, wherein the serrations have an included angle of between 50° and 70°.

16. A knife as in any of Claims 2 and 11 to 15, wherein the serrations have an included angle of 60°.

17. A knife substantially as hereinbefore described with reference to Figures 1 to 4 of the accompanying drawings.

18. A knife substantially as hereinbefore described with reference to Figures 5 to 8 of the accompanying drawings.

Printed for Her Majesty's Stationery Office by the Courier Press, Leamington Spa, 1983. Published by the Patent Office 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.

EVERETT PURDY, and Gillette Supermax Pro 1500.

products should run out soon.

with the corporation's toiletry and

See GILLETTE, Page 42

CU: Kerosene Heater Pollutants 'Hazardous'

MOUNT VERNON, N.Y. — Consumers Union tested the safety features on 18 kerosene heaters and found the Koehring Deluxe KR D 93 and Sears catalog number 40204 "not acceptable."

All 18 models were "judged inherently hazardous; they should be used with extreme care," according to the October issue of Consumer Reports. "Because of the pollutants these devices add to i air, CU recommends a t use of a kerosene heater b ople with certain health . . . and pregnant wom- n and the elderly."

ring and Sears models acceptable" also "pre- rious fire hazard," o Consumer Reports. d over in CU's tests, they continued to burn and leaked appreciable quantities of fuel."

Consumers Union tested the safety devices on the 18 kerosene heaters by tipping each unit partway over at first, then over fully. While the flame-cutoff mechanism worked on every heater, the "cutoff was less than perfect" on the Koehring and Sears units, which use the same wick.

The Koehring heater was tipped three times; twice the flame continued to burn and once the flame went out after about 30 seconds, according to Consumer Reports.

"The cutoff switch on the Sears worked just fine when we tipped it; the flame went out. But when we exchanged wicks in those two models, the Sears continued burning when it was tipped over and the Koehring didn't."

BOTH UNITS were judged not acceptable because a "safe wick could be replaced by an unsafe one in due course," Consumer Reports stated.

The Koehring and Sears heaters not only kept on burning, they also leaked fuel when tipped over. "The kerosene soaked into a rug put under the heaters for this test; the flame from the heater set fire to the rug in about three minutes."

Nine other heaters, eight of them radiant models, were given a low mark in the fire hazard column in Consumer Reports' ratings because they "leaked kerosene when we tipped them more than 60 degrees. None of the nine continued to burn, however," CR said.

The heaters given a low rating in the fire hazard column were: the Kero-Sun Omni 105; Aladdin Temp-Rite 9; Glo-International Corona SP-DX; Heat Mate D670GED; Kero-Sun Radiant 10; Kero-Sun Radiant 36; Radiant King RK 100S; Sanyo OHR G28H, and Yuasa J-20. All but the Kero-Sun Omni 105 and Kero-Sun Radiant 10 have removable fuel tanks.

THE OTHER heaters tested were the Glo-International Corona 22DK; Koehring Magnum KCM 200; Sears catalog number 40305, and Yuasa J-50 convective-type heaters plus the Aladdin Equator S581U; Radiant King RK 500C,

See CU: KEROSENE, Page 50

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RESTAURANTS & INSTITUTIONS
SEPT. 1, 1981 p. 61
R&I Food Business

PROFILE

Local boy comes home to Indiana

Can a 30-year-old restaurant and hotel executive, trained in Austria, Switzerland and South Africa, find happiness at a 71-year-old seafood dinner house in Hammond, Ind.?

Yes, indeed, says Mike Probst, who purchased the landmark Phil Smidt & Son restaurant last fall.

"I love this operation," says Probst of the 450-seat restaurant.

But Probst also admits that he "never dreamt [he] would return to the United States" let alone find satisfaction at a limited-menu dinner house in Hammond, Ind.

Probst grew up in Highland, Ind., (not far from Hammond) with a dream of running a fine hotel.

His father, an executive with Standard Oil of Indiana, was an "outstanding cook." A neighbor owned a restaurant.

When Probst was 15, his family spent a year in Europe.

"I loved the food," he says, "and was impressed that in Europe, people who worked in the hotel and restaurant business were considered true professionals. That wasn't true at the time in the United States."

So, at the age of 17, Probst packed his bags and headed out for Austria to a hotel and culinary school in the town of Bad Hofgastein.

Probst spent three years at the school, working summers in other facilities in Switzerland and Austria.

Europe apparently wasn't enough to satisfy Probst's *wanderlust*. For his first job after school, he traveled to Port Elizabeth, South Africa, to help open a new hotel.

After four years of traveling, however, Probst was getting a little homesick. He returned to the United States and took a job with the Hyatt Regency O'Hare in Chicago.

After a year with Hyatt, Probst moved to Los Angeles, where he helped Holiday Inns open a new airport hotel. He then spent nine months in Holiday Inns' corporate headquarters in Memphis.

At that point, Probst was concentrating in front desk and other room-related positions. During his next job, at the Hampshire House in Chicago (now The Raphael), he decided food and beverage, restaurants, was what he really enjoyed doing.

So he went to work for Restaurant Associates, which at that time was operating the President's Restaurant in the space now occupied by Nick's Fishmarket.

When the President's closed, Probst took what he thought was a temporary job managing Phil Smidt's.

"Peter Smidt has just donated the restaurant to Calumet College. The understanding was the college would quickly sell it."

A few months stretched into four years.

"The place had some real problems," Probst says. "Poor supervision and a lack of controls meant poor food and poor service."

While Probst was working to right the restaurant's problems, he also was falling in love.

"This place is unique and steeped in tradition," he says.

Probst's respect for this tradition has kept him from changing much.

"I'd be a fool to change any of it," he says.

The Phil Smidt signature item is lake perch, fried, buttered and deboned. More than half of the restaurant's customers order this item. During the busy summer months, the restaurant serves 5,000 lb. of perch a week.

Other popular menu items are frog legs and chicken. The menu also includes walleye pike, shrimp and crab legs, one of the few items Probst has added to the menu.

The relishes and potato salad are made according to old Smidt family recipes.

But if Probst depends on old-fashioned recipes to please his customers, he also backs up those recipes with modern management techniques.

The implementation of controls and some judicious advertising have helped Probst boost the restaurant's volume from $1.4 million in 1977 to $2.5 million last year.

"The restaurant slump hasn't affected us a bit," he says.

As Probst celebrates the birth of his first child, a son, and prepares for Phil Smidt's 71st anniversary, he admits he's feeling right at home in Indiana.

"I'd like to pass this restaurant on some day," he says. □

D7/650

Avon Products Inc. Campaign 29 - 1981

NEW

Just in time for those holiday desserts.

1981
page 17

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D7/142 (other side) page 18

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Save $3.00

Gourmet
APRIL, 1973
p. 41

(page top)

GOURMET
APRIL, 1973
p. 41

Our Chef's Tools.
Because what's good for the goose isn't good for the green beans.

Any chef will tell you that when food isn't cut properly, it doesn't cook properly.

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2. Our Chef's Knife. Its chopping power makes this a great salad, stew and casserole maker

The length of the blade allows you to place 8-10 pieces of celery, carrots, beans, etc; on a cutting board and dice them 8-10 times faster.

In addition, this knife takes the hassle out of preparing French fries, out of scalloping, chopping nuts or candied fruits.

3. Our Utility-Knife. This knife gives you the blade you need to tackle tough-to-peel-and-slice things like eggplant, pineapple and tomatoes.

And because it's constructed like a small carving knife, it's excellent for boning and for trimming excess fat and gristle off meats.

4. Our Scalloped Slicer. We put scallops on our slicer because for slicing soft foods, you need a knife that works something like a saw.

It lets you slice, instead of crush, fruits, vegetables and baked goods.

And if there were such a thing as speed records for slicing through boneless meats and fowl, this knife would hold them all.

5. Our Butcher Knife. Use this knife for all the heavy-work your butcher doesn't do for you. For preparing pork loins, chuck roasts, for cutting anything from rump to brisket to lobster, or for disjoining fowl. Or for even cleaving easily and safely through all of the larger fruits and vegetables.

6. Our Carving Knife. Our Carving Knife takes up where our slicer leaves off. At bones.

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And a point is the only way to get around a bone without making mincemeat of your roast or chicken. This knife, like the rest, not only looks beautiful, but more importantly, works beautifully.

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6 pc. set, $39.95 (Parer, Carver, Utility, Chef's Knife, Scalloped Slicer, Butcher Knife).
Each set comes in its own molded case for wall mounting or drawer storage.

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D7-650

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MODERN BEAUTY SHOP FEB, 1973 P. 34

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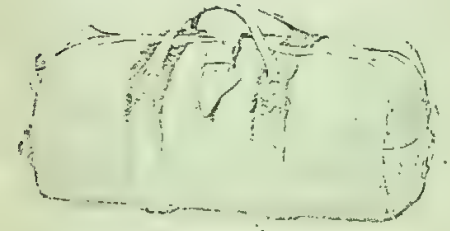
SPECIAL SALE only $19.98
ORIGINALLY $29.98 SAVE $10.00



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P. 25

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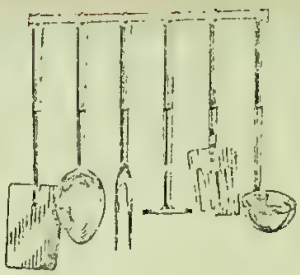

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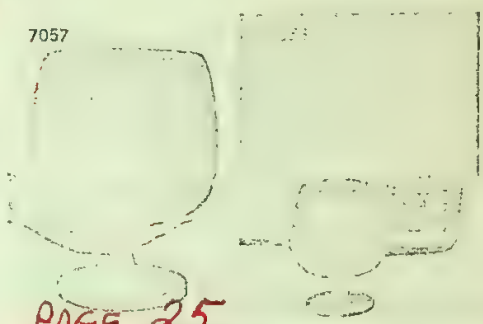

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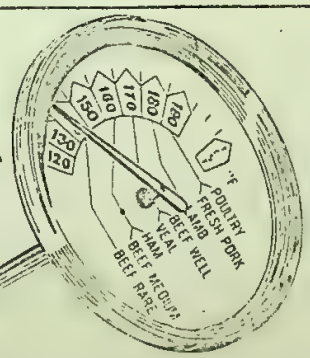
This meat thermometer is a brain!



AUTOMATICALLY SHOWS YOU WHEN MEAT IS READY

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Rec'd. 3/6/1972

SUPPLEMENT to HOME FURNISHINGS DAILY, JULY 8, 1968
p. 2 of Supplement.

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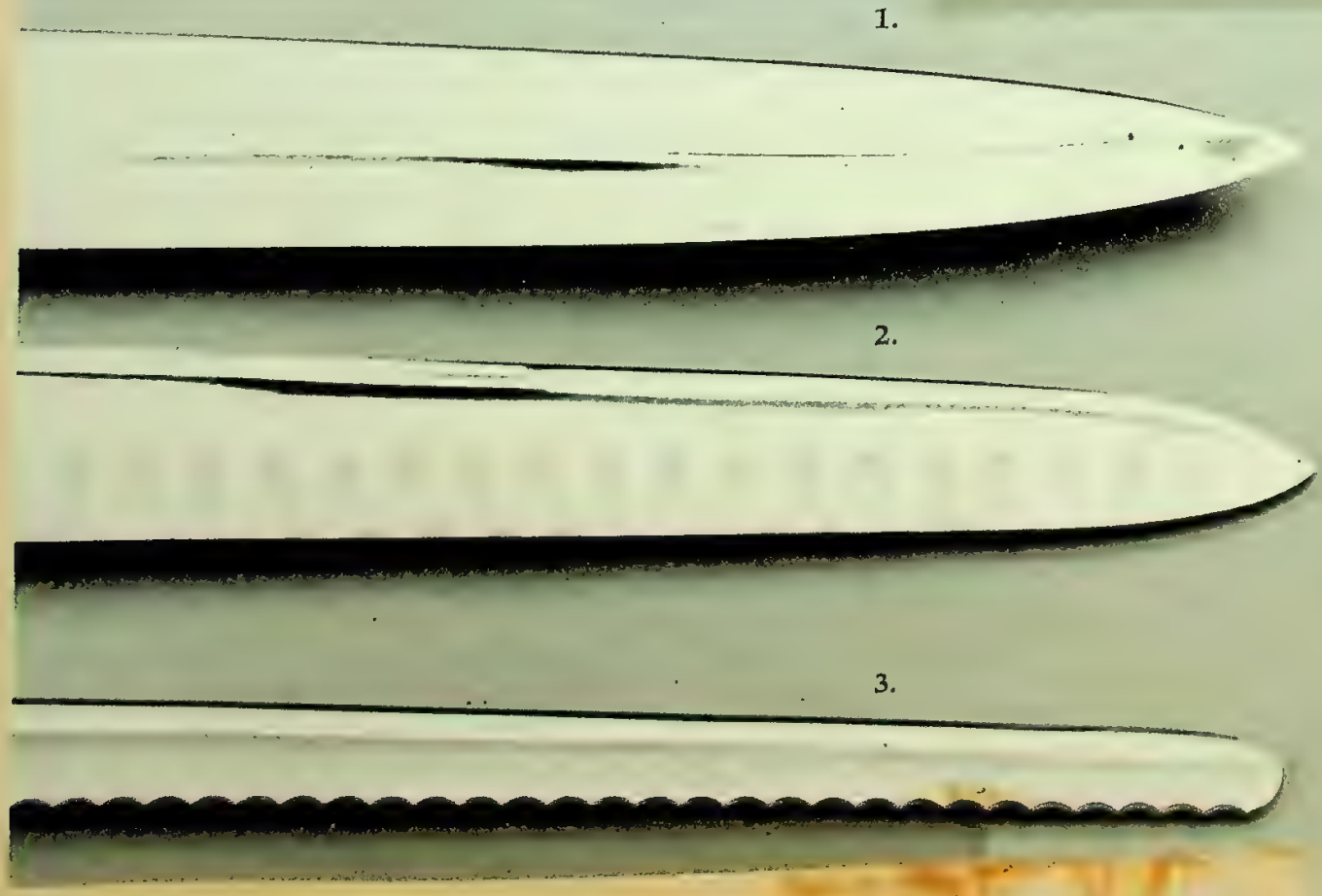

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June, '67

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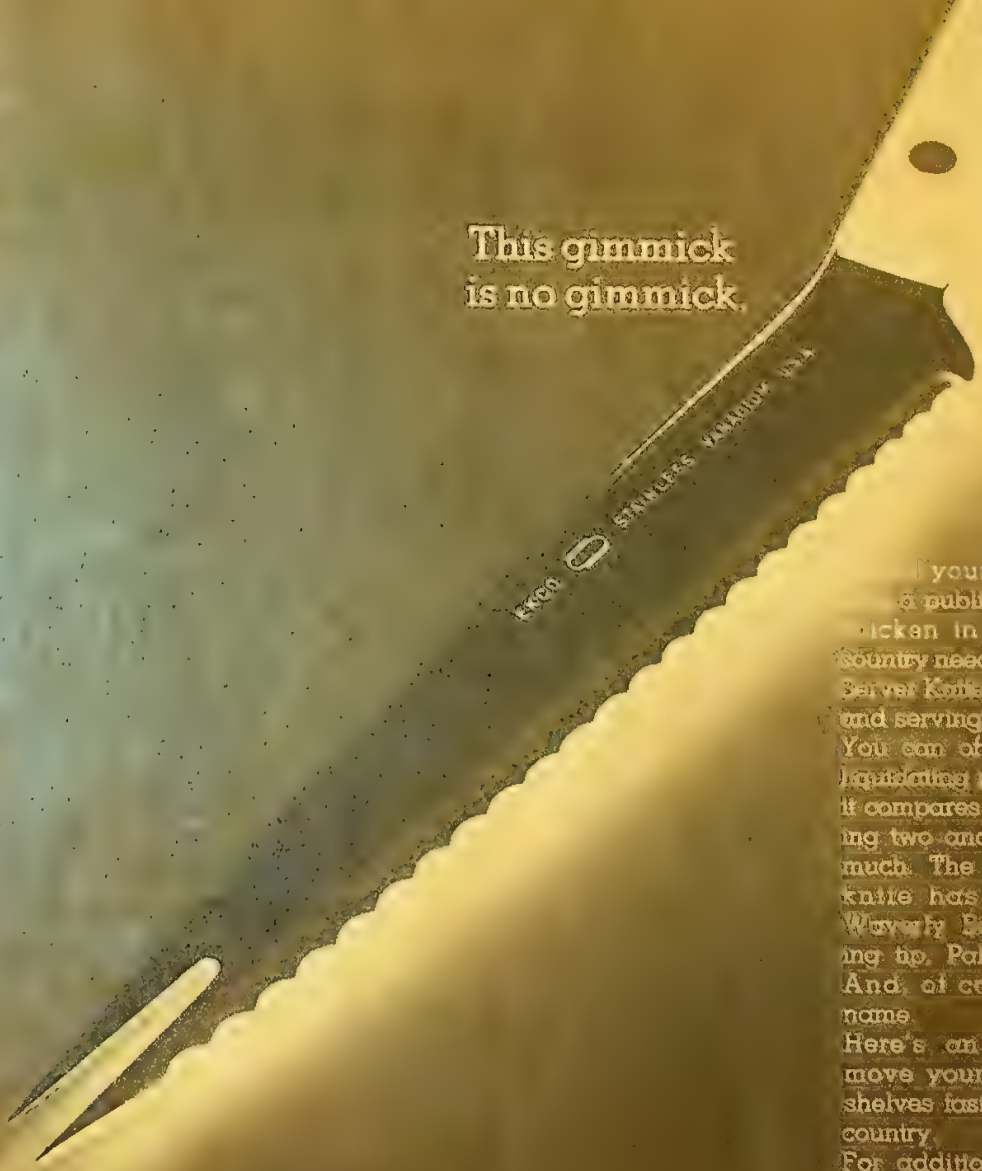

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EKCO

XD 7/650

SWITZERLAND 353936
1 Blatt

Fig. 1

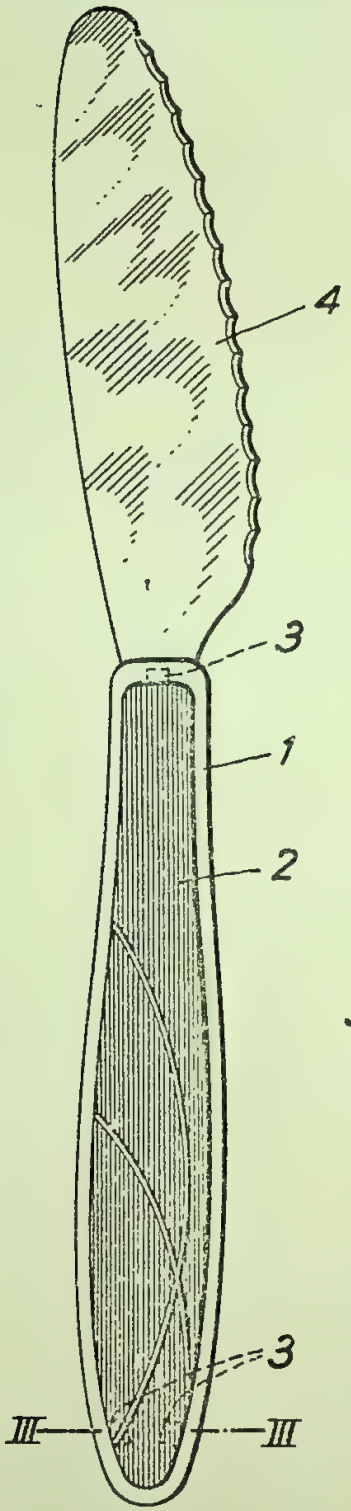


Fig. 2

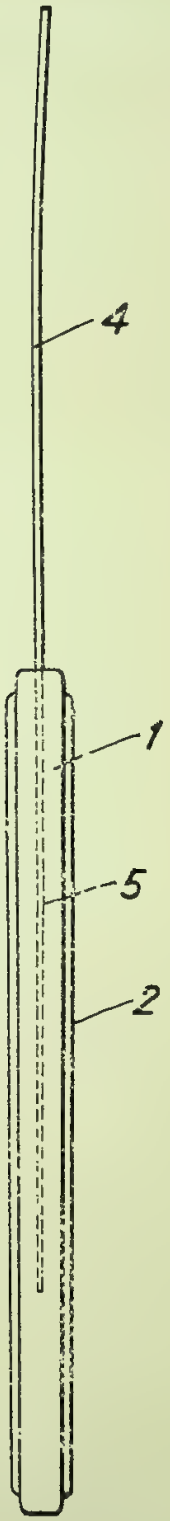
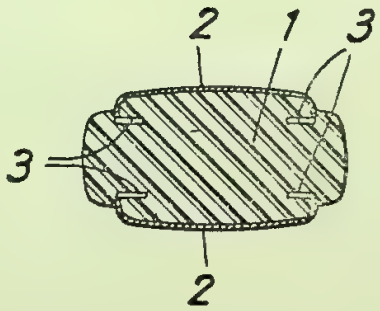


Fig. 3



Nr. 393 980 PATENTSCHRIFT Nr. 393 980

SCHWEIZERISCHE EIDGENOSSENSCHAFT

EIDGENÖSSISCHES AMT FÜR GEISTIGES EIGENTUM

Klassierung: 69, 18

Int. Cl.: B 26 b

Gesuchsnummer: 4763/62

Anmeldungsdatum: 18. April 1962, 18½ Uhr

Patent erteilt: 15. Juni 1965

Patentschrift veröffentlicht: 15. November 1965

S

HAUPTPATENT

Wenger S.A., Delémont

Messergriff

Max Oertli, Delémont, ist als Erfinder genannt worden

Es sind Messergriffe für Tafelmesser, Fruchtmesser und dergleichen bekannt, die aus Holz, Horn, Kunststoff oder Metall bestehen. Die Griffe aus nichtmetallischem Material befriedigen insofern nicht, als sie zu den Griffen der übrigen Bestecke, Löffel, Gabeln usw. nicht recht passen. Zudem werden sie nach relativ kurzer Gebrauchszeit oft unansehnlich. Die in verschiedenen Ausführungen bekannten Metallgriffe, die sich zu den Griffen der übrigen Bestecke sehr gut passend ausbilden lassen, kommen ziemlich teuer zu stehen. Das Verbinden der Klinge mit dem Griff, sei es durch Einkitten eines Angels oder durch Zusammenschweißen, ist kompliziert. Zudem sind solche Griffe vielfach zu schwer und fühlen sich kalt an.

Zur Vermeidung dieser Mängel ist der erfindungsgemäße Messergriff durch einen Griffkörper aus thermoplastischem Kunststoff mit abgeflachtem Querschnitt gebildet, auf dessen Seitenflächen Metallschalen verankert sind.

Im folgenden wird an Hand der beiliegenden Zeichnung ein Ausführungsbeispiel der Erfindung erläutert.

Auf der Zeichnung zeigt:

Fig. 1 ein Messer mit einem erfindungsgemäßen Griff von der Seite,

Fig. 2 das gleiche Messer vom Messerrücken her gesehen und

Fig. 3 einen Schnitt nach der Linie III–III in Fig. 1.

Der Griff besitzt einen aus einem thermoplastischen Kunststoff, z. B. aus dem unter der geschützten Marke «Grillon» bekannten Kunststoff, bestehenden, durch Spritzen hergestellten Griffkörper 1. Die Metallschalen 2 werden während des Spritzens in bekannter Weise mit dem Griffkörper vereinigt. Die abgebogenen Ränder der Schalen sind in den Kunststoff eingegossen und können in bekannter Weise mit Verankerungsmitteln, z. B. Verankerungsfahnen 3, versehen sein.

Die Form des Griffes, die Farbe des Kunststoffes und das Material der Schalen und ihre Dekoration lassen sich geschmackvoll den Griffen der übrigen Bestecke anpassen. Der Griff ist relativ leicht und fühlt sich nicht kalt an, da die Schalen dünn sein können. Die Vereinigung der Klinge 4 mit dem Griff läßt sich sehr einfach bewerkstelligen.

Der entsprechend erwärmte Angel 5 der Klinge, der z. B. mit Widerhaken versehen sein kann, braucht nur in den Kunststoffkörper, der zu diesem Zweck bei der Herstellung auch mit einer Aussparung versehen werden kann, hineingedrückt zu werden und sitzt dort nach dem Erkalten zuverlässig fest.

PATENTANSPRUCH

Messergriff, gekennzeichnet durch einen Griffkörper (1) aus thermoplastischem Kunststoff mit abgeflachtem Querschnitt, auf dessen Seitenflächen Metallschalen verankert sind.

Wenger S. A.

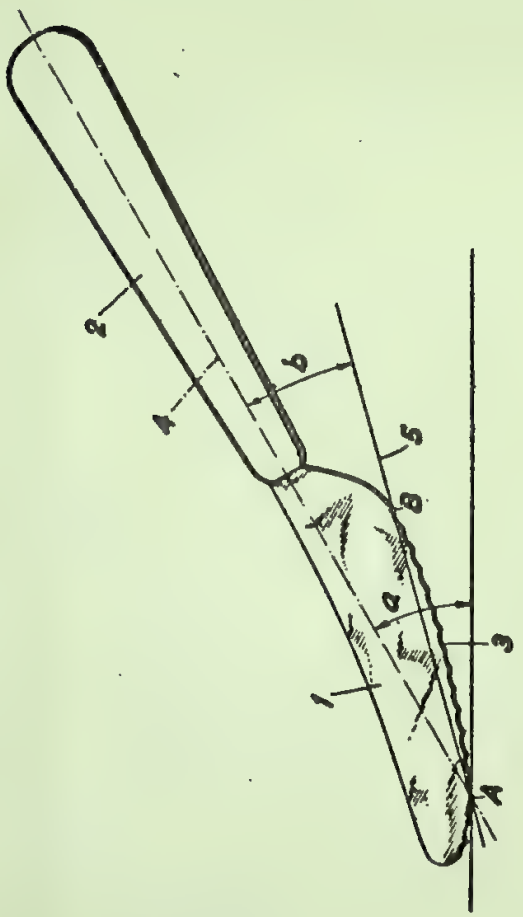
Vertreter: Bovard & Cie., Bern

D7-650

[redacted]

Jan. 31, 1959
SWISS

Patent Nr. 334745
1 Blatt



Nr. 334745

Nr. 334745

SCHWEIZERISCHE EIDGENOSSENSCHAFT

EIDGENÖSSISCHES AMT FÜR GEISTIGES EIGENTUM

PATENTSCHRIFT

Veröffentlicht am 31. Januar 1959

Klasse 86

Max Oertli, Delémont (Bern), ist als Erfinder genannt worden

HAUPTPATENT

Wenger S.A., Delémont (Bern)

Gesuch eingereicht: 22. September 1955, 18¼ Uhr — Patent eingetragen: 15. Dezember 1958

Tischmesser

Gegenstand der Erfindung ist ein Tischmesser, welches dadurch gekennzeichnet ist, daß die Griffachse die konvex gekrümmte Messerschneide in ihrem vordern Teil unter einem Winkel von angenähert 30° schneidet, während der Winkel zwischen der Griffachse und der Geraden, die deren Schnittpunkt mit der Messerschneide mit dem hintern Schneidenende verbindet, angenähert 15° beträgt.

Es hat sich gezeigt, daß, wenn ein solches Tischmesser wie üblich so gehalten wird, daß seine Griffachse etwa unter 30° zur Schneidunterlage geneigt ist, es eine wesentlich bessere Schneidwirkung hat als ein übliches Tischmesser, bei dem die Schneide bzw. ihre Sehne ungefähr parallel zur Griffachse verläuft. Man kann nämlich trotz der Neigung der Griffachse einen «ziehenden Schnitt» erzielen, und das Messer hat weniger die Tendenz, das Schneidgut wegzuschieben.

Beiliegende Zeichnung stellt ein Ausführungsbeispiel des Erfindungsgegenstandes dar.

Die einzige Figur zeigt das Messer in Seitenansicht in der Gebrauchslage.

Die Klinge des dargestellten Tischmessers ist mit 1 und der an dieser Klinge in bekannter Art und Weise befestigte Griff ist mit 2 bezeichnet.

Die Klinge 1 hat eine zackig geschliffene, konvex gekrümmte Messerschneide 3, die in ihrem vordern Teil von der Achse 4 des Griffes 2 unter einem Winkel *a* von angenähert 30° geschnitten wird. Der Schnittpunkt ist mit *A* bezeichnet. Der Winkel *b* zwischen der Griffachse 4 und der Geraden 5, die den Schnittpunkt *A* mit dem hintern Ende *B* der Messerschneide 3 verbindet, beträgt angenähert 15°.

PATENTANSPRUCH

Tischmesser, dadurch gekennzeichnet, daß die Griffachse die konvex gekrümmte Messerschneide in ihrem vordern Teil unter einem Winkel von angenähert 30° schneidet, während der Winkel zwischen der Griffachse und der Geraden, die deren Schnittpunkt mit der Messerschneide mit dem hintern Schneidenende verbindet, angenähert 15° beträgt.

Wenger S.A.

Vertreter: Bovard & Cie., Bern

ZEICHNUNGEN BLATT 1 AUSGABETAG: 14. AUGUST 1957 DAS 1 013 994
KL. 69 18
INTERNAT. KL. B 26b

92

XD7/650

GERMANY

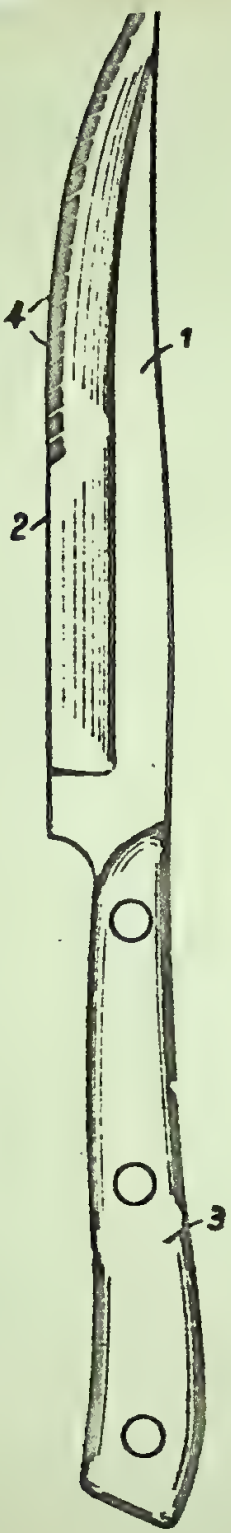


Abb. 2

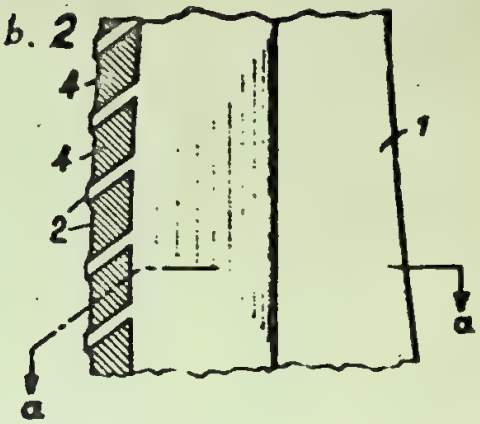


Abb. 3

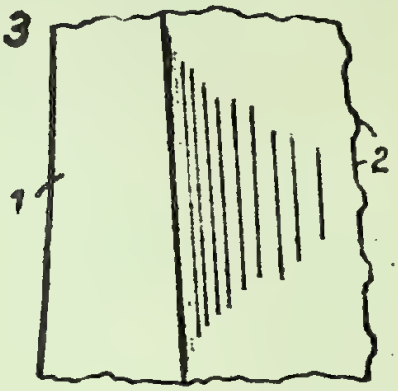


Abb. 5

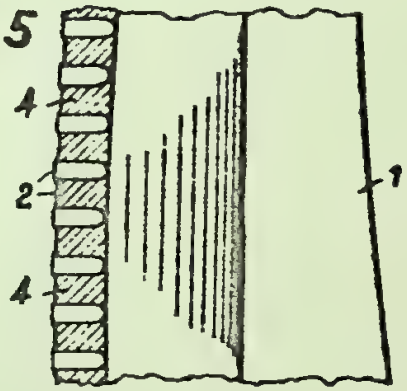


Abb. 4

BUNDESREPUBLIK DEUTSCHLAND

INTERNAT. KL. B 26 b

DEUTSCHES PATENTAMT

AUSLEGESCHRIFT 1 013 994

W 18057 XI / 69

ANMELDETAG: 15. DEZEMBER 1955

BEKANNTMACHUNG DER ANMELDUNG UND AUSGABE DER AUSLEGESCHRIFT: 14. AUGUST 1957

Messer mit im Hohlschliff erzeugter Schneide

Anmelder:
Fa. Anton Wingen jr.,
Solingen, Gasstr. 54

Heinz Wingen, Solingen,
ist als Erfinder genannt worden

1

Die Erfindung betrifft ein Messer mit einer dünnen, vorzugsweise im Hohlschliff erzeugten Schneide und hat sich die Aufgabe gestellt, die Schneide mit Bezug auf ihre Schneidfähigkeit noch weiter zu verbessern.

Die Erfindung besteht demzufolge darin, daß eine oder beide Schliffphasen der Messerklinge im Ätzverfahren erzeugte, in bekannter Weise in die Schneidkante auslaufende Vertiefungen aufweisen.

Durch das neue Verfahren läßt sich die dünne bzw. hohlgeschliffene Klinge eines Messers an ihrer Schneidkante noch weiter verdünnen, als es bisher durch Hohlschliff möglich war, und dadurch eine bisher nicht bekannte Schneidwirkung erzielen. Die Flächen der Vertiefungen sind dabei zweckmäßig größer, zumindest aber ebenso groß wie die zwischen den Vertiefungen stehengebliebenen Flächen.

Es sind bereits Messer bekannt, deren Klinge zur Verbesserung der Schneide an einer oder beiden Flanken Vertiefungen aufweisen, die in die Schneidkante auslaufen und dabei Kantenausnehmungen bilden. Derartige vermittels eines spanabhebenden Werkzeuges beispielsweise in Form einer Schleifscheibe gebildete Vertiefungen lassen sich jedoch nur bei einer solchen Messerklinge erzeugen, deren Querschnitt im Bereich der Schneidkante noch einen Schleifvorgang zuläßt. Bei dünnen Messerklingen und solchen mit konvexen Flanken lassen sich dagegen Vertiefungen vermittels spanabhebender Werkzeuge nicht erzeugen, weil die Messerklingen infolge ihres im Bereich der Schneidkante geringen Querschnitts einen derartigen Schleifvorgang nicht mehr erlauben. Es ist zwar bereits bekannt, Vertiefungen an den Flanken einer Messerklinge durch Ätzen zu erzeugen. Diese Vertiefungen, wie sie insbesondere an der Klinge eines zum Schneiden von weichem Gut dienenden Messers erzeugt werden, dienen aber nicht zur Verbesserung der Klingenschneide, sondern sollen lediglich verhüten, daß stark klebendes Schneidgut bei Vollziehung des Schnittes an der Messerklinge haftenbleibt. Mit Rücksicht auf diese Aufgabe reichen die Vertiefungen im Gegensatz zu den erfindungsgemäß erzeugten auch nur bis an die Schneidkante heran, wie auch ihre Flächen kleiner sind als die nach dem Ätzen stehengebliebenen Flächen.

In der Zeichnung ist die Erfindung in zwei Ausführungsbeispielen an einem mit einer hohlgeschliffenen Klinge ausgestatteten Messer veranschaulicht. Es zeigt

Abb. 1 das Messer in Ansicht,

2

Abb. 2 einen Teil der gegenüber Abb. 1 in vergrößertem Maßstab dargestellten Klinge des Messers in Draufsicht auf die Vertiefungen aufweisende Flanke und

Abb. 3 in Rückansicht,

Abb. 4 einen Schnitt nach der Linie *a-a* der Abb. 2 und

Abb. 5 an einer teilweise und in vergrößertem Maßstab dargestellten Messerklinge ein anderes Ausführungsbeispiel der Erfindung.

Das Messer besteht aus der Klinge **1**, deren Schneidkante **2** durch Hohlschliff erzeugt ist, und dem Griff **3**.

Die eine Schliffphase der Klinge **1** weist im Ätzverfahren erzeugte Vertiefungen **4** auf, die in dem Ausführungsbeispiel der Abb. 1 bis 4 zu der Schneidkante **2** schräg verlaufen.

In dem Ausführungsbeispiel der Abb. 5 bilden die Vertiefungen **4** mit der Schneidkante **2** einen rechten Winkel.

Die Vertiefungen können selbstverständlich auch andere Formen aufweisen.

PATENTANSPRUCH:

Messer mit im Hohlschliff erzeugter Schneide, dadurch gekennzeichnet, daß eine oder beide Schliffphasen der Messerklinge im Ätzverfahren erzeugte, in bekannter Weise in die Schneidkante auslaufende Vertiefungen aufweisen.

In Betracht gezogene Druckschriften:
Französische Patentschrift Nr. 875 874.

Hierzu 1 Blatt Zeichnungen

© 709 657/74 8.57

Louis Helfer

Brevet N° 251959
1 feuille

Fig. 1.

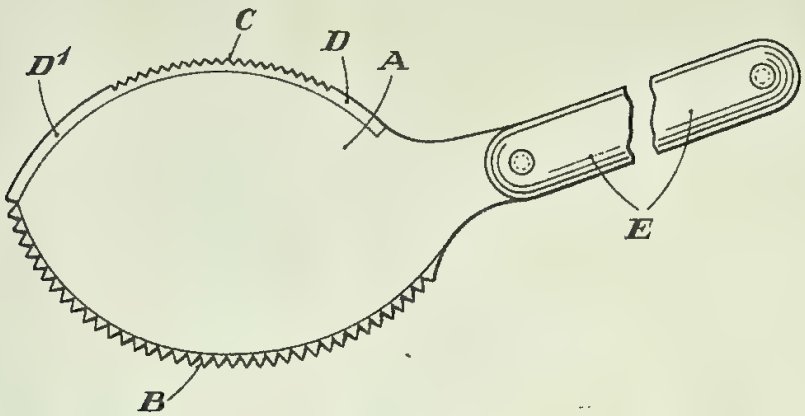


Fig. 2.

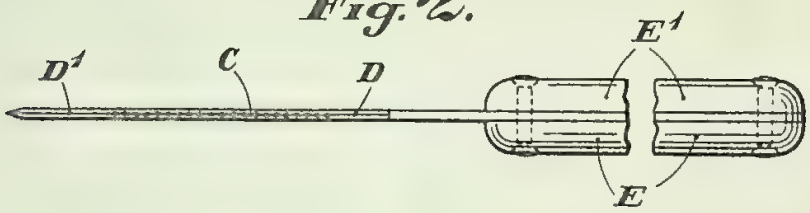
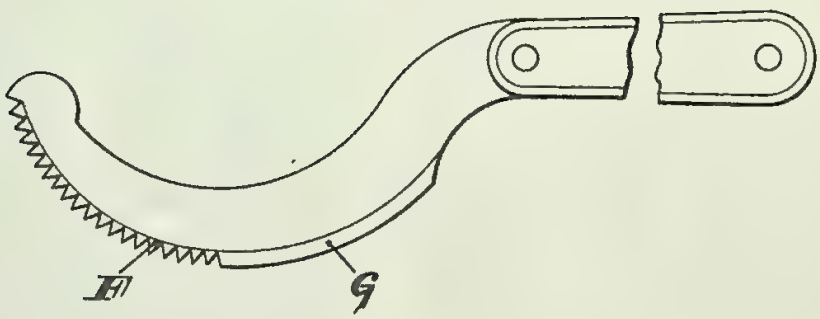


Fig. 3.



№ 251959

CONFÉDÉRATION SUISSE

BUREAU FÉDÉRAL DE LA PROPRIÉTÉ INTELLECTUELLE

EXPOSÉ D'INVENTION

Publié le 1er septembre 1948

Classe 86

Demande déposée: 7 mars 1946, 12¼ h. — Brevet enregistré: 30 novembre 1947.

BREVET PRINCIPAL

Louis Helfer, Petit-Lancy (Genève, Suisse).

Couteau à découper la pâte cuite.

L'invention a pour objet un couteau à découper la pâte cuite des tartes, gâteaux aux fruits ou toutes autres pâtes employées par les boulangers et les pâtissiers.

Ce couteau n'a pas pour but de couper la pâte comme un couteau à lame ordinaire auquel on imprime des mouvements de translation; il a pour but de rompre la pâte, et il est caractérisé par une lame en arc dont un bord travaillant comporte une denture destinée à briser la pâte par une pression et un mouvement de balancement de ladite lame.

Le dessin ci-joint montre, à titre d'exemple, deux formes d'exécution de ce couteau, respectivement en fig. 1 et 2 et en fig. 3.

Dans la forme d'exécution représentée en fig. 1 et 2, *A* est une spatule de forme ovale comportant sur l'un des bords une denture *B* dont les dents très pointues pénètrent sans grand effort dans la pâte pour la briser. Sur l'autre bord, en *D* et *D*¹, la spatule présente une partie tranchante dont le but est de trancher, par un mouvement de balancement, la pâte qui ne serait pas brisée complètement par la pénétration des dents de la partie *B* de la spatule. Sur le bord opposé à la denture *B*, une petite denture *C* sert à scier le rebord d'une tarte avant de procéder au découpage des tranches.

La fig. 2 montre l'épaisseur de la spatule, avec un prolongement qui permet la fixation de deux flasques en matière non métallique *E*, *E*¹ pour servir de manche. Cette spatule est pratique pour relever les tranches découpées.

La fig. 3 représente une forme d'exécution comportant une lame en arc dont le bord convexe comprend une partie dentée *F* pour briser la pâte, par un mouvement de balancement, et une partie tranchante *G* dont le but est de trancher ensuite, par un mouvement de balancement, la pâte qui ne serait pas brisée complètement.

REVENDICATION:

Couteau à découper la pâte cuite, caractérisé par une lame en arc dont un bord travaillant comporte une denture destinée à briser la pâte par une pression et un mouvement de balancement de ladite lame.

SOUS-REVENDICATIONS:

1. Couteau suivant la revendication, caractérisé en ce que les dents sont pointues.

2. Couteau suivant la revendication et la sous-revendication 1, caractérisé en ce qu'il constitue une spatule de forme ovale comportant, sur l'un des bords, des dents pour briser la pâte, et, sur le bord opposé, une partie tranchante dont le but est de trancher, par un mouvement de balancement, la pâte qui ne serait pas brisée complètement par la pénétration des dents susdites.

3. Couteau suivant la revendication et les sous-revendications 1 et 2, caractérisé en ce que ledit bord opposé aux susdites dents pointues comporte en outre une petite denture servant à scier le rebord d'une tarte avant de procéder au découpage des tranches.

Louis Helfer.

Mandataire: Fl. Rabilloud, Genève.

Patent nr. 44802

Fig. 1.

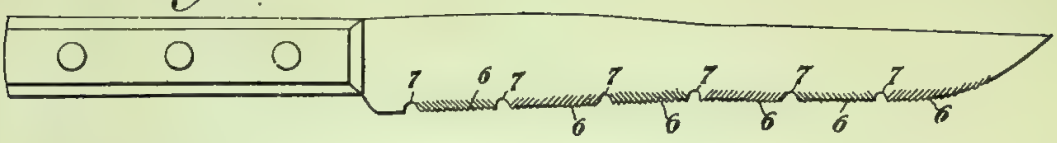


Fig. 2.

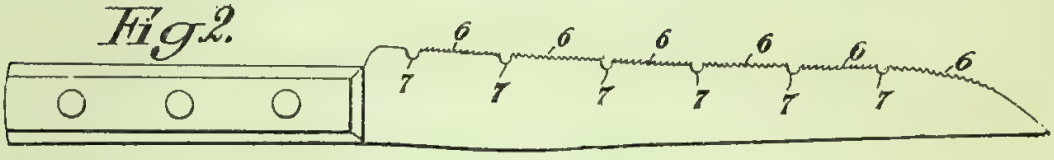


Fig. 3

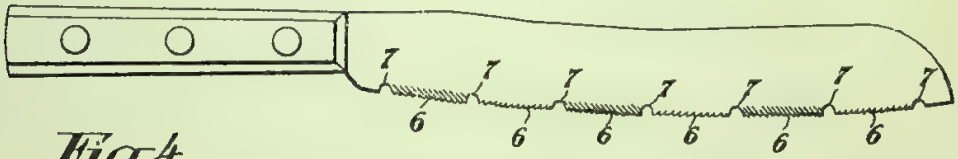


Fig. 4.

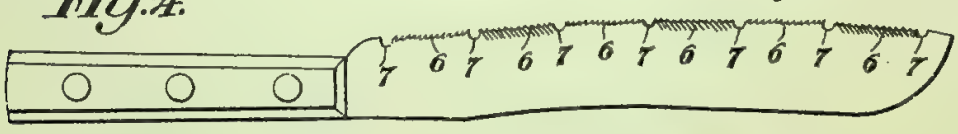


Fig. 5

NORSK PATENT

Nr. 44802

KLASSE 69

FREMSTILLING

MED TILHØRENDE TEGNING

OFFENTLIGGJORT AV STYRET FOR DET INDUSTRIELLE RETSVERN

23de januar 1928

Kniv.

Joseph Edward Burns av Syracuse, N. Y., U. S. A.

(Fuldmægtig: Ingeniør Ths. Berg i firma Bryns Patentkontor, Oslo).

Patent i Norge fra 5te oktober 1926.

I henhold til den internationale konvention kræver patenthaveren ifølge til Styret indlevert dokument prioritet for nærværende patent fra 6te oktober 1925, da patentkrav blev indgit i U. S. A.

Opfindelsen vedrører anordninger ved kniver av alle arter. Den er paa hosføiede tegning vist anvendt ved brødkniver. Hovedhensigten med opfindelsen er at tilveiebringe en kniv som skjærer bedre og renere end de hittil anvendte kniver.

Fig. 1 viser et skjæreredskap i henhold til opfindelsen set fra siden.

Fig. 2 er et lignende siderids set fra den motsatte side.

Fig. 3 og 4 er siderids svarende til fig. 1 og 2 av en anden utførelsesform for kniven.

Fig. 5 viser en del av et slipehjul egnet for knivens fremstilling.

Kniven i henhold til opfindelsen er forsynt med et antal rækker 6 av skraatstillede riller, hvorved der altsaa dannes et antal rækker av forholdsvis smaa nøiagtig formede slipte tænder, hvor rillene og tænderne i hver række er skraatstillet i forhold til redskapets egg og ogsaa skraatstillet i forhold til rillene i de tilstøtende rillerækker med mellemliggende tænder. Samtlige rillerækker 6 kan slipes paa en og samme side av kniven, saaledes som vist paa fig. 1 og 2, eller ogsaa kan rillene avvekslende slipes paa motsat side av kniven, saaledes som vist paa fig. 3 og 4.

Resultatet av denne motstaaende skraatstilling av de paa hinanden følgende rillerækker er tilveiebringelsen av eggavsnit med kileformet mot eggen skraanende tænder. Den indbyrdes avstand mellem disse rillerækker kan enten som vist være like stor for hele knivens vedkommende eller om ønskes varieres.

Den muligens bedste maate til at faa eggen formet saaledes som vist paa tegningen er at anvende en roterende slipehjul forsynt med en flerhet av langs periferien forløpende, paralelle, jevne rifler av V-form adskilt ved trange riller likeledes av V-form. Naar man holder kniven under passende skraastilling i kontakt med det paa fig. 5 viste hjul under dettes rotation kan en komplet rille- eller tandrække 6 bli slipt samtidig, og ved denne fremgangsmaate blir avstanden og tilformningen av rillene eller tænderne muligens mere jevn end man ellers vil kunne opnaa. Ved den motsatte skraastilling av de tilstøtende rillerækker faar man en mellemliggende ikke fortandet del. Ansøkeren har fundet, at ved at slipe væk denne del mellem de ved siden av hinanden liggende rilierækker, saaledes at der tilveiebringes en forholdsvis stor fordypning 7 som adskiller rillerækkene, og den rette egg mellem disse helt fjernes, opnaar man en meget forbedret skjæreegg, som har et bedre og renere snit. Resultatet er omtrent det samme enten alle rille- og tandrækker slipes paa den ene side av kniven eller avvekslende den ene paa den ene side og den anden paa den anden side av kniven.

Knife.

Paa de paa tegningen viste utførelsesformer er der anordnet fem indhak 7 i kniveggen, saaledes at der blir et indhak paa hver side av rillerækkene, og dette indhak er vist utført omtrent halvcirkelformet med en radius svarende omtrent til rillelængdene, saaledes at skjæreeggen kommer til at bestaa utelukkende av en flerhet av rillerækker, av hvilke hver bestaar av en flerhet av omtrent V-formede riller, som blir dypere i retning av eggen og skjærer ind i og bryter egglinjens sammenhæng, saaat der dannes en flerhet av i det væsentlige like V-formede tænder, og hvor hver av disse rækker er adskilte fra naborækkene ved en større fordypning i eggen, saaat den effektive skjæreegg utelukkende dannes av disse tænder eller indhak.

Patentpaastande:

1. Kniv hvis skjæreegger er dannet av flere rækker av skraatstillede riller, som igjen danner smaa, slipte tænder, karakterisert ved, at rillene i hver av disse rækker (6) er skraatstillet i forhold til eggen i en retning avvikende fra skraastillingen i de tilstøtende rækker og at de derved dannede tænder ligger i eggens plan.

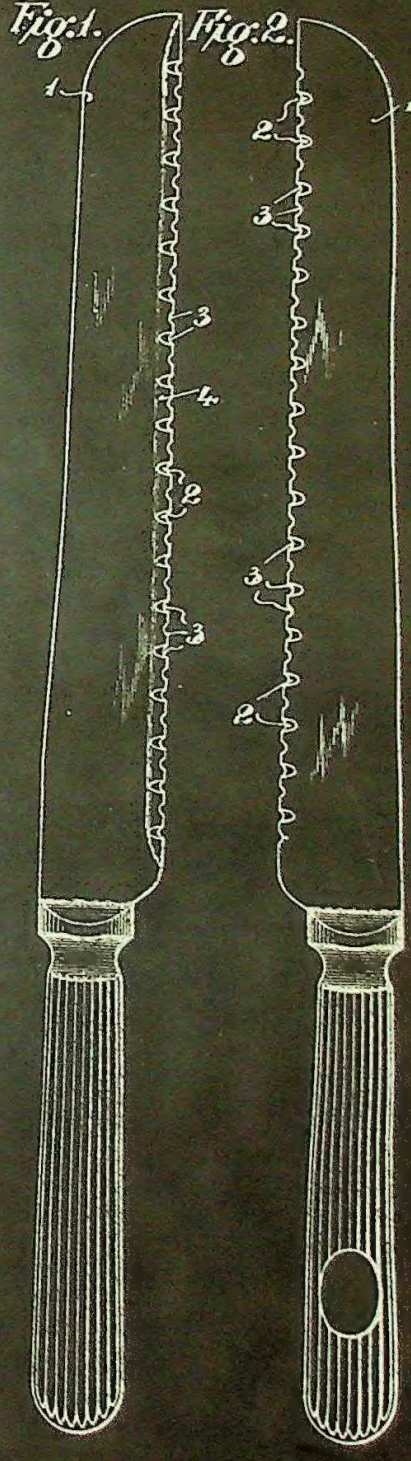
2. Kniv i henhold til paastand 1, karakterisert ved, at der paa i og for sig kjendt maate er anordnet indhak (7) i eggen mellem de til hinanden støtende rillerækker (6), saaledes at eggen blir bestaaende utelukkende av rillerækker med tænder adskilte ved mellemrum.

Oscar Andersens boktrykkeri. Oslo.

D1-650

North, (Great Britain) Feb 25 1926

247,768 COMPLETE SPECIFICATION 1 SHEET



[This Drawing is a reproduction of the Original on a reduced scale]

Charles & Read Ltd. Photo Litho.

PATENT SPECIFICATION

247,768

Application Date: March 27, 1925. No. 8215/25.

Complete Left: Dec. 11, 1925.

Complete Accepted: Feb. 25, 1926.

PROVISIONAL SPECIFICATION.

Improvements relating to Knives for Cutting Bread, or for other uses.

I, ERNEST NORTH, British subject, of Mount Orgueil, Burman Road, Shirley, near Birmingham, do hereby declare the nature of this invention to be as follows:—

This invention relates to knives for cutting bread, or for other uses, such knives being of that type wherein a series of separated grooves are ground or milled in the side of the blade of the knife adjacent the cutting edge, the said grooves terminating in notches formed in the said edge, so that a saw-like formation is imparted to the latter. The object of the present invention is to provide an improved construction of knife of this type whereby a more efficient cutting action is obtained.

Hitherto, the grooves have been formed in the one side of the blade of the knife only, but according to the present invention it is proposed to form the grooves alternately first in the one side and then in the other side of the blade, whilst, preferably, a cannel or bevel is formed along the cutting edge upon the under side of the blade, assuming the knife to be in the normal horizontal cutting position, the upper side of the blade being ground flat. The alternate arrangement of the grooves gives an improved cutting action, the efficiency of which is materially increased by the aforesaid cannel or bevel. Where a cannel or bevel has been provided it has previously been formed upon the top side of the blade and not upon the underside, as in the present arrangement.

Thus, in carrying out the invention, the improved knife is formed adjacent its cutting edge and at right-angles thereto with a series of short semi-circular sectional grooves. These grooves are formed by a grinding or milling operation which leaves them with clean cut edges, and they are disposed alternately first upon the one side and then upon the other side of the blade of the knife, each groove becoming gradually deeper towards the cutting edge where they each terminate in a semi-circular or U-shaped notch formed in the latter, the notches, which are formed during the grinding of the grooves, being disposed at separated distances apart and extending throughout the length of the cutting edge of the knife. The underside of the blade, assuming the knife to be held in its normal horizontal cutting position, is formed adjacent its cutting edge with a cannel or bevel, whilst the requisite sharpness is given to the knife by grinding the opposite or upper side of the blade flat.

The improved knife, constructed in the above manner, has a very efficient cutting action which is particularly suitable for cutting bread, although it may be used for other purposes. To give the most efficient results a saw-like motion should be given to the knife during cutting operation. The efficiency of the knife is primarily due to the alternate disposition of the grooves, although, as previously stated, the cutting action is considerably improved owing to the bevel or cannel upon the underside of the blade. If the cannel be formed upon the upper side of the blade the cutting efficiency of the knife is considerably diminished.

It is obvious that the notches may be disposed at any suitable distance apart, whilst the grooves communicating therewith may be of any desired length.

Dated this 26th day of March, 1925.

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[Price 1/-]